

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 June 2004 (17.06.2004)

PCT

(10) International Publication Number
WO 2004/052013 A1

(51) International Patent Classification⁷: H04N 7/24, 17/00

(74) Common Representative: KONINKLIJKE PHILIPS
ELECTRONICS N.V.; c/o GROSS, Russell, P.O. Box
3001, Briarcliff Manor, NY 10510-8001 (US).

(21) International Application Number:
PCT/IB2003/005423

(22) International Filing Date:
25 November 2003 (25.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/431,342 5 December 2002 (05.12.2002) US

(71) Applicant (for all designated States except US): KONIN-
KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

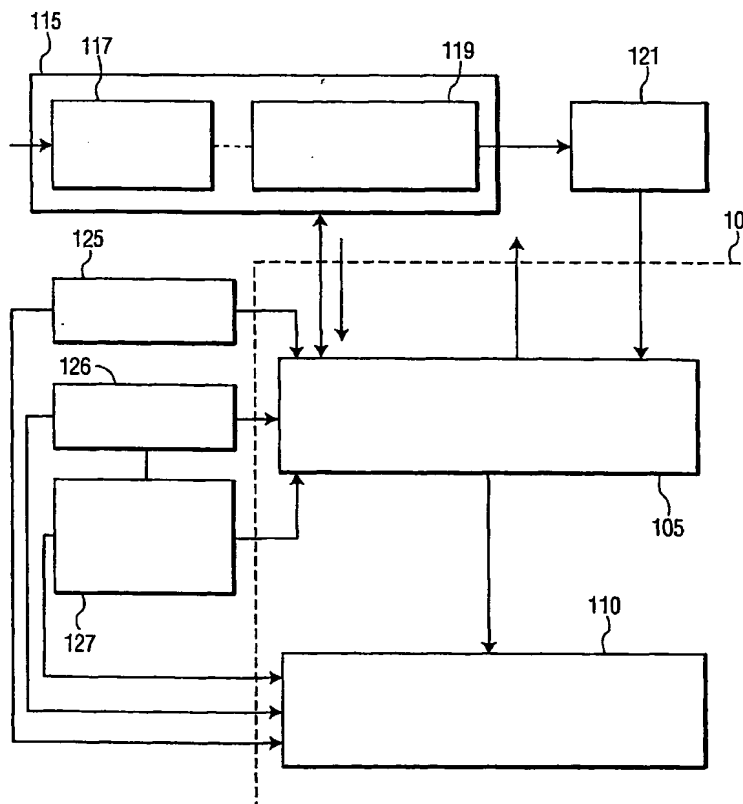
(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventor; and

(75) Inventor/Applicant (for US only): ALI, Walid [EG/US];
P.O. Box 3001, Briarcliff Manor, NY 10510-8001 (US).

[Continued on next page]

(54) Title: A SYSTEM MANAGEMENT SCHEME FOR A SIGNAL-PROCESSING-BASED DECISION SUPPORT SYSTEM



(57) Abstract: A decision support system and a method for a signal processing system includes a video processing system for receiving and processing a video stream and providing a video output; a video quality evaluation module that receives the video output from the video processing system and evaluates the quality according to predetermined criteria; a video optimizer adapted for receiving the evaluated quality of the video output from evaluation module and level settings of parameters and for setting controls of the levels settings of parameters of video processing system, said video optimizer including a Multi Objective Genetic Algorithm (MOGA) engine, wherein the MOGA uses genetic algorithms to optimize the settings of controls for video processing system to optimize image quality at a predetermined level.



Declaration under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*